

REMARKS

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated October 1, 2004, claims 1-22 are pending in the application. Claim 22 stands allowable if rewritten to overcome the §112 rejections. Applicants respectfully request the Examiner to reconsider the rejections in view of the amendments above.

Claims 1-22 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended the claims and believe that each of these rejections has been overcome. The terminology for corrected steering wheel angle has been changed to corrected steering wheel angle input throughout to be consistent. This change corrects the errors noted in Claims 1 and 5 above. In Claim 8, "condition" has been added after lateral dynamic to provide clear antecedent basis. Claims 9 and 22 have also been changed.

Claims 1-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Serizawa* (5,097,917).

Applicants have amended the independent claims to clarify the invention. The present invention is directed to a yaw control system for an automotive vehicle that uses steering actuators. Claim 1 recites a lateral dynamic sensor, a steering wheel angle sensor, a road wheel steer angle sensor, and a yaw rate sensor. The Applicants direct the Examiner to Fig. 4. As can be seen, the present invention is directed to a feed forward/feedback system, although this is not specifically recited in Claim 1. The invention determines the variable u which is the actual commanded steering input. A corrected road wheel steering angle input and modified steering wheel input are used together to form the actual commanded steering input u . The determination of the corrected steering wheel input and the modified steering wheel input are different from those set forth in the *Serizawa* reference. The controller determines a desired yaw rate in response to the steering wheel angle signal as illustrated in block 52. A modified steering wheel input is determined as a function of the desired yaw rate in block 54. The desired yaw rate is also fed forward. Thus, the feedback controller 55 determines the corrected steering wheel input as a function of the desired yaw rate, actual yaw rate, the lateral dynamic condition of the vehicle, and the road wheel angle sensor.

The *Serizawa* reference is merely a four-wheel steering system. The *Serizawa* reference is best understood by reviewing Col. 8, lines 20-49. The *Serizawa* reference controls the front steered wheels to move the true steered angle toward the target wheel angle so that error is minimized therebetween.

The *Serizawa* reference further describes the determination of the rear steering angle. Again, the rear angle steering target is determined by the actual and target steering angle. However, in this case, the actual yaw rate and the yaw rate sensor are used. It should be noted that in Claim 1 both the yaw rate and the lateral dynamic condition are used. Both a modified steering wheel input and a corrected steering wheel input are determined. The *Serizawa* reference does not teach or suggest the use of both of such conditions. Applicants therefore respectfully request the Examiner to reconsider the rejection of Claim 1 in view of the amendments above.

Claims 2-7 are also believed to be allowable for the same reasons set forth with respect to Claim 1.

Independent Claims 8 and 14 have similar limitations to Claim 1 with respect to the corrected steering wheel input and the modified steering wheel input. Therefore, those claims and their dependent claims are also believed to be allowable for the same reasons set forth above.

Claim 22 was deemed allowable but has been amended to clarify the wording consistent with Claims 1, 8 and 14.

In light of the above amendments and remarks, Applicants submit that all objections are now overcome. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments the Examiner is respectfully requested to call the undersigned attorney.

Please charge any fees required in the filing of this amendment to Deposit Account 06-1510.

Respectfully submitted,
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Date: 1/3/05